

Per/09  
2/19/2001

Serial Number: 09/837,581

Errors Corrected by the STIC

oms Branch

CRF Processing Date:

Edited by:

Modified by:

2/19/2001

ENTERED

Changed a file from non-ASCII to ASCII

Changed the margins in cases where the sequence text was "wrapped" down to the next line.

Edited a format error in the Current Application Data section, specifically:

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_

Added the mandatory heading and subheadings for "Current Application Data".

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

Changed the spelling of a mandatory field (the headings or subheadings), specifically:

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: 55

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_

Deleted extra, invalid, headings used by an applicant, specifically:

Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  page numbers throughout text;  other invalid text, such as \_\_\_\_\_

Inserted mandatory headings, specifically: \_\_\_\_\_

Corrected an obvious error in the response, specifically:

Edited identifiers where upper case is used but lower case is required, or vice versa.

Corrected an error in the Number of Sequences field, specifically:

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_

Other:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:10

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07192001\I857581.raw

PS

3 <110> APPLICANT: E. I. du Pont de Nemours and Company  
5 <120> TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase  
7 <130> FILE REFERENCE: BB1339 PCT  
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/857,581  
C--> 10 <141> CURRENT FILING DATE: 2001-06-05  
12 <150> PRIOR APPLICATION NUMBER: 60/117,769  
13 <151> PRIOR FILING DATE: 1999-01-27  
15 <150> PRIOR APPLICATION NUMBER: 60/144,783  
16 <151> PRIOR FILING DATE: 1999-07-20  
18 <150> PRIOR APPLICATION NUMBER: 60/156,094  
19 <151> PRIOR FILING DATE: 1999-09-24  
21 <160> NUMBER OF SEQ ID NOS: 66  
23 <170> SOFTWARE: Microsoft Office 97  
25 <210> SEQ ID NO: 1  
26 <211> LENGTH: 1756  
27 <212> TYPE: DNA  
28 <213> ORGANISM: Glycine max  
30 <400> SEQUENCE: 1  
31 gtaattaacc tcactcaaacc tcgggatcac agaaaccaac aacagttctt gcactgaggt 60  
32 ttcacgatgt tgcttggact tgcacttgggt ttgtttgtgt tagctttgtt tctgcacttg 120  
33 cgtcccacac caagtgcacaa atcaaaaagca cttcgccacc tcccaaaaccc tccaagccca 180  
34 aagcctcgtc ttcccttcat tggccaccc taccctttaa aagataaaact tctccactat 240  
35 gcactcatcg atctctccaa aaagcatggc cccttattct ctctctccctt cggctccatg 300  
36 ccaaccgtcg ttgcctccac ccctgagttt ttcaagctct tcctccaaac ccacgaggca 360  
37 acttccttca acacaagggtt ccaaaccctt gccataagac gcctcactta cgacaactct 420  
38 gtggccatgg ttccatttcgg accttactgg aagttcgtga ggaagctcat catgaacgcac 480  
39 cttctcaacg ccaccaccgtt caacaagctc aggccttga ggacccaaca gatccgcaag 540  
40 ttcccttaggg ttatggccca aagcgcagag gcccagaagc cccttgcacgt caccgaggag 600  
41 ctcttcataat ggaccaacag caccatctcc atgatgatgc tcggcgaggc tgaggagatc 660  
42 agagacatcg ctcgcgaggt tcttaagatc ttccggcgaat acagcctcac tgacttcatc 720  
43 tggccttga agtatctcaa ggttggaaag tatgagaaga ggattgtatga catcttgaac 780  
44 aagttcgacc ctgtcgatgt aagggtcatc aagaagcgcc gtgagatcgt cagaaggaga 840  
45 aagaacggag aagttgtgtt gggcgaggcc agcggcgatc tcctcgacac ttgttgcac 900  
46 ttccgctgagg acgagaccat ggagatcaaa attaccaagg agcaaattcaa gggccttgc 960  
47 gtcgactttt tctctgcagg gacagattcc acagcggtgg caacagatgt ggcattggca 1020  
48 gagctcatca acaatccccag ggtgttgcaa aaggctcgatc aggaggtctt cagttgtgt 1080  
49 ggcaaaagata gactcgatgtt cgaagttgc actcaaaaacc ttcccttacat tagggccatt 1140  
50 gtgaaggaga cattccgaat gcacccacca ctcccagtgg tcaaaaagaaa gtgcacagaa 1200  
51 gagttgtgaga ttaatgggtt ttttgcattt gggggatgtt tttttttttt caatgtttgg 1260  
52 caagtaggaa gggaccccaa atactggac agaccatcg aattccgtcc cgagaggatc 1320  
53 tttagaaactg gtgctgaagg ggaaggcaggc cctcttgcatt tttagggccca gcatttccaa 1380  
54 ctccctccat ttgggtctgg gaggagaatg tgccctgggt tcaatttggc tacttcagga 1440  
55 atggcaacac ttcttgcattt ttttgcattt tgctttgacc tgcaagtgtt gggccctcaa 1500  
56 ggacaaaatgtt tgaaagggtgtt tgatgcacaa gttttttttttt aagagagatc tggcctcaca 1560  
57 gttccaaagggtt cacatagtct cgtttgtgtt ccacttgcaat ggatcggcgatc tgcatctaaa 1620  
58 ctcccttctt aattaaatgcata atcatcatat acaatgtgtt tttttttttt tcaagttttt 1680  
59 tttttatgtt ttcataatca tcatttcaat aaggtgtgtt tttttttttt tcaagttttt 1740

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:10

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07192001\I857581.raw

60 aaggttacat acatgc 1756  
 62 <210> SEQ ID NO: 2  
 63 <211> LENGTH: 521  
 64 <212> TYPE: PRT  
 65 <213> ORGANISM: Glycine max  
 67 <400> SEQUENCE: 2  
 68 Met Leu Leu Glu Leu Ala Leu Gly Leu Phe Val Leu Ala Leu Phe Leu  
 69 1 5 10 15  
 71 His Leu Arg Pro Thr Pro Ser Ala Lys Ser Lys Ala Leu Arg His Leu  
 72 20 25 30  
 74 Pro Asn Pro Pro Ser Pro Lys Pro Arg Leu Pro Phe Ile Gly His Leu  
 75 35 40 45  
 77 His Leu Leu Lys Asp Lys Leu Leu His Tyr Ala Leu Ile Asp Leu Ser  
 78 50 55 60  
 80 Lys Lys His Gly Pro Leu Phe Ser Leu Ser Phe Gly Ser Met Pro Thr  
 81 65 70 75 80  
 83 Val Val Ala Ser Thr Pro Glu Leu Phe Lys Leu Phe Leu Gln Thr His  
 84 85 90 95  
 86 Glu Ala Thr Ser Phe Asn Thr Arg Phe Gln Thr Ser Ala Ile Arg Arg  
 87 100 105 110  
 89 Leu Thr Tyr Asp Asn Ser Val Ala Met Val Pro Phe Gly Pro Tyr Trp  
 90 115 120 125  
 92 Lys Phe Val Arg Lys Leu Ile Met Asn Asp Leu Leu Asn Ala Thr Thr  
 93 130 135 140  
 95 Val Asn Lys Leu Arg Pro Leu Arg Thr Gln Gln Ile Arg Lys Phe Leu  
 96 145 150 155 160  
 98 Arg Val Met Ala Gln Ser Ala Glu Ala Gln Lys Pro Leu Asp Val Thr  
 99 165 170 175  
 101 Glu Glu Leu Leu Lys Trp Thr Asn Ser Thr Ile Ser Met Met Met Leu  
 102 180 185 190  
 104 Gly Glu Ala Glu Glu Ile Arg Asp Ile Ala Arg Glu Val Leu Lys Ile  
 105 195 200 205  
 107 Phe Gly Glu Tyr Ser Leu Thr Asp Phe Ile Trp Pro Leu Lys Tyr Leu  
 108 210 215 220  
 110 Lys Val Gly Lys Tyr Glu Lys Arg Ile Asp Asp Ile Leu Asn Lys Phe  
 111 225 230 235 240  
 113 Asp Pro Val Val Glu Arg Val Ile Lys Lys Arg Arg Glu Ile Val Arg  
 114 245 250 255  
 116 Arg Arg Lys Asn Gly Glu Val Val Glu Gly Glu Ala Ser Gly Val Phe  
 117 260 265 270  
 119 Leu Asp Thr Leu Leu Glu Phe Ala Glu Asp Glu Thr Met Glu Ile Lys  
 120 275 280 285  
 122 Ile Thr Lys Glu Gln Ile Lys Gly Leu Val Val Asp Phe Phe Ser Ala  
 123 290 295 300  
 125 Gly Thr Asp Ser Thr Ala Val Ala Thr Glu Trp Ala Leu Ala Glu Leu  
 126 305 310 315 320  
 128 Ile Asn Asn Pro Arg Val Leu Gln Lys Ala Arg Glu Glu Val Tyr Ser  
 129 325 330 335  
 131 Val Val Gly Lys Asp Arg Leu Val Asp Glu Val Asp Thr Gln Asn Leu

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:10

Input Set : A:\Pto.amc  
Output Set: N:\Crf3\07192001\I857581.raw

132	340	345	350													
134	Pro	Tyr	Ile	Arg	Ala	Ile	Val	Lys	Glu	Thr	Phe	Arg	Met	His	Pro	Pro
135																365
137	Leu	Pro	Val	Val	Lys	Arg	Lys	Cys	Thr	Glu	Glu	Cys	Glu	Ile	Asn	Gly
138																380
140	Tyr	Val	Ile	Pro	Glu	Gly	Ala	Leu	Val	Leu	Phe	Asn	Val	Trp	Gln	Val
141	385															400
143	Gly	Arg	Asp	Pro	Lys	Tyr	Trp	Asp	Arg	Pro	Ser	Glu	Phe	Arg	Pro	Glu
144																415
146	Arg	Phe	Leu	Glu	Thr	Gly	Ala	Glu	Gly	Glu	Ala	Gly	Pro	Leu	Asp	Leu
147																430
149	Arg	Gly	Gln	His	Phe	Gln	Leu	Leu	Pro	Phe	Gly	Ser	Gly	Arg	Arg	Met
150																445
152	Cys	Pro	Gly	Val	Asn	Leu	Ala	Thr	Ser	Gly	Met	Ala	Thr	Leu	Leu	Ala
153																460
155	Ser	Leu	Ile	Gln	Cys	Phe	Asp	Leu	Gln	Val	Leu	Gly	Pro	Gln	Gly	Gln
156	465															480
158	Ile	Leu	Lys	Gly	Asp	Asp	Ala	Lys	Val	Ser	Met	Glu	Glu	Arg	Ala	Gly
159																495
161	Leu	Thr	Val	Pro	Arg	Ala	His	Ser	Leu	Val	Cys	Val	Pro	Leu	Ala	Arg
162																510
164	Ile	Gly	Val	Ala	Ser	Lys	Leu	Leu	Ser							
165																520
167	<210>	SEQ	ID	NO:	3											
168	<211>	LENGTH:	27													
169	<212>	TYPE:	DNA													
170	<213>	ORGANISM:	Artificial	Sequence												
172	<220>	FEATURE:														
173	<223>	OTHER	INFORMATION:	Description	of	Artificial	Sequence:	Oligonucleotide								
175	<400>	SEQUENCE:	3													
176	cgggatccat	gcaaccggaa	accgtcg													27
178	<210>	SEQ	ID	NO:	4											
179	<211>	LENGTH:	32													
180	<212>	TYPE:	DNA													
181	<213>	ORGANISM:	Artificial	Sequence												
183	<220>	FEATURE:														
184	<223>	OTHER	INFORMATION:	Description	of	Artificial	Sequence:	Oligonucleotide								
186	<400>	SEQUENCE:	4													
187	ccggaattct	caccaaacat	cacggaggta	tc												32
189	<210>	SEQ	ID	NO:	5											
190	<211>	LENGTH:	47													
191	<212>	TYPE:	DNA													
192	<213>	ORGANISM:	Artificial	Sequence												
194	<220>	FEATURE:														
195	<223>	OTHER	INFORMATION:	Description	of	Artificial	Sequence:	Oligonucleotide								
197	<400>	SEQUENCE:	5													
198	tcaaggagaaa	aaaaccccg	atccatgttg	ctggaaacttg	cacttgg											47
200	<210>	SEQ	ID	NO:	6											
201	<211>	LENGTH:	35													

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:10

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07192001\I857581.raw

202 <212> TYPE: DNA  
203 <213> ORGANISM: Artificial Sequence  
205 <220> FEATURE:  
206 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide  
208 <400> SEQUENCE: 6  
209 ggccagtgaa ttgtataatcg actcactata gggcg 35  
211 <210> SEQ ID NO: 7  
212 <211> LENGTH: 24  
213 <212> TYPE: DNA  
214 <213> ORGANISM: Artificial Sequence  
216 <220> FEATURE:  
217 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer  
219 <400> SEQUENCE: 7  
220 aaaatttagcc tcacaaaaagc aaag 24  
222 <210> SEQ ID NO: 8  
223 <211> LENGTH: 27  
224 <212> TYPE: DNA  
225 <213> ORGANISM: Artificial Sequence  
227 <220> FEATURE:  
228 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer  
230 <400> SEQUENCE: 8  
231 atataaggat tgatagttt tagtagg 27  
233 <210> SEQ ID NO: 9  
234 <211> LENGTH: 1824  
235 <212> TYPE: DNA  
236 <213> ORGANISM: Glycine max  
238 <400> SEQUENCE: 9  
239 ggaaaattag cctcacaaaa gcaaagatca aacaaaccaa ggacgagaac acgatgttgc 60  
240 ttgaacttgc acttgggtta ttgggtttgg ctctgtttct gcacttgcgt cccacaccca 120  
241 ctgcaaaatc aaaagcactt cggcatctcc caaacccacc aagccaaag cctcgttcc 180  
242 cttcatagg acacccatctt ctctaaaag acaaacttct ccactacgca ctcatcgacc 240  
243 tctccaaaaaa acatggtccc ttattcttc tctactttgg ctccatgcc accgttgttgc 300  
244 cttccacacc agaattgttc aagctcttcc tccaaacgcga cgaggcaact tccttcaaca 360  
245 caagggttcca aacctcagcc ataagacgcc tcacatatga tagctcaatgc gccatgggtc 420  
246 cttccggacc ttacttggaaat ttcgtgagga agctcatcat gaacgaccc cccaaacgcga 480  
247 ccactgtaaa caagttgagg cttttgagga cccaaacagac ccgcaggatcc cttagggat 540  
248 tggcccaagg cgcagaggca cagaagcccc ttgacttgc cgaggagctt ctgaaatgg 600  
249 ccaacagcac catctccatg atgatgttc gcggaggctga ggagatcaga gacatcgctc 660  
250 gcgaggatcc taagatcttt ggcgaataaca gccttactga cttcatctgg ccattgaagc 720  
251 atctcaaggat tggaaatgtt gagaagagga tcgacgacat cttgaacaatgttgcaccctg 780  
252 tcgttggaaat ggtcatcaag aagcggcgat agatcgatgg gaggagaaatg 840  
253 ttgttgggg tgaggatcgc ggggttttcc ttgacacttt gcttgaatcc gctggggatg 900  
254 agaccatggaa gatcaaaaatc accaaggacc acatcgaggat tcttggatcc gactttttct 960  
255 cggcagggaaac agactccaca gcgggtggcaaa cagagtggc attggcagaa ctcatcaaca 1020  
256 atccctaaaggat gttggaaaat gtcgtgagg aggtctacatg tggatggaa aaggacagac 1080  
257 ttgtggacgaa agttgacact caaaaaccttc cttacattatg agcaatcgatg aaggagacat 1140  
258 tccgcatttgc cccggccactc ccaggatggca aaagaaaatg cacagaagatg tgtgagat 1200  
259 atggatatgtt gatcccagatgg gggcatttgc ttcttcaatgttgcaccctg 1260  
260 accccaaataat ctgggacagaat ccatcgaggat tccgtccttgc gaggttccatg gagacagggg 1320

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:10

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07192001\I857581.raw

261 ctgaaggggga agcagggcct cttgatctta ggggacaaca tttcaactt ctcccatgg 1380  
 262 ggtctggag gagaatgtgc cctggagtca atctggctac ttccggaaatg gcaacacttc 1440  
 263 ttgcacatctt tattcagtgc ttgcacttgc aagtgcgtgg tccacaagga cagatattga 1500  
 264 aggggtgtga cgccaaagtt agcatggaaag agagagccgg cctcactgtt ccaagggcac 1560  
 265 atagtcttgt ctgtgttcca ttgcagggaa tcggcggttc atctaaactc ctttcttaat 1620  
 266 taagatcatc atcatatata atatttactt tttgtgtgtt gataatcatc attcaataa 1680  
 267 ggtctcggttc atctactttt tatgaagtat ataagccctt ccatgcacat tgtatcatct 1740  
 268 cccatttgc ttgcgttgct acctaaggca atctttttt ttttagaatc acatcatcct 1800  
 269 actataaact atcaatcctt atat 1824  
 271 <210> SEQ ID NO: 10  
 272 <211> LENGTH: 521  
 273 <212> TYPE: PRT  
 274 <213> ORGANISM: Glycine max  
 276 <400> SEQUENCE: 10  
 277 Met Leu Leu Glu Leu Ala Leu Gly Leu Leu Val Leu Ala Leu Phe Leu  
 278 1 5 10 15  
 280 His Leu Arg Pro Thr Pro Thr Ala Lys Ser Lys Ala Leu Arg His Leu  
 281 20 25 30  
 283 Pro Asn Pro Pro Ser Pro Lys Pro Arg Leu Pro Phe Ile Gly His Leu  
 284 35 40 45  
 286 His Leu Leu Lys Asp Lys Leu Leu His Tyr Ala Leu Ile Asp Leu Ser  
 287 50 55 60  
 289 Lys Lys His Gly Pro Leu Phe Ser Leu Tyr Phe Gly Ser Met Pro Thr  
 290 65 70 75 80  
 292 Val Val Ala Ser Thr Pro Glu Leu Phe Lys Leu Phe Leu Gln Thr His  
 293 85 90 95  
 295 Glu Ala Thr Ser Phe Asn Thr Arg Phe Gln Thr Ser Ala Ile Arg Arg  
 296 100 105 110  
 298 Leu Thr Tyr Asp Ser Ser Val Ala Met Val Pro Phe Gly Pro Tyr Trp  
 299 115 120 125  
 301 Lys Phe Val Arg Lys Leu Ile Met Asn Asp Leu Pro Asn Ala Thr Thr  
 302 130 135 140  
 304 Val Asn Lys Leu Arg Pro Leu Arg Thr Gln Gln Thr Arg Lys Phe Leu  
 305 145 150 155 160  
 307 Arg Val Met Ala Gln Gly Ala Glu Ala Gln Lys Pro Leu Asp Leu Thr  
 308 165 170 175  
 310 Glu Glu Leu Leu Lys Trp Thr Asn Ser Thr Ile Ser Met Met Met Leu  
 311 180 185 190  
 313 Gly Glu Ala Glu Glu Ile Arg Asp Ile Ala Arg Glu Val Leu Lys Ile  
 314 195 200 205  
 316 Phe Gly Glu Tyr Ser Leu Thr Asp Phe Ile Trp Pro Leu Lys His Leu  
 317 210 215 220  
 319 Lys Val Gly Lys Tyr Glu Lys Arg Ile Asp Asp Ile Leu Asn Lys Phe  
 320 225 230 235 240  
 322 Asp Pro Val Val Glu Arg Val Ile Lys Lys Arg Arg Glu Ile Val Arg  
 323 245 250 255  
 325 Arg Arg Lys Asn Gly Glu Val Val Glu Gly Glu Val Ser Gly Val Phe  
 326 260 265 270  
 328 Leu Asp Thr Leu Leu Glu Phe Ala Glu Asp Glu Thr Met Glu Ile Lys

Use of n and/or Xaa has been detected in the Sequence listing.  
 Review the Sequence Listing to insure a corresponding  
 explanation is presented in the <220> to <223> fields of  
 each sequence using n or Xaa.

**VERIFICATION SUMMARY**  
PATENT APPLICATION: US/09/857,581

DATE: 07/19/2001  
TIME: 08:11:11

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07192001\I857581.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:3373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3400 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66

PCT09

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/857,581

DATE: 06/27/2001  
 TIME: 15:07:36

Does Not Comply  
 Corrected Diskette Needed

Input Set : A:\BB1339 PCT Seq Listing.txt  
 Output Set: N:\CRF3\06272001\I857581.raw

3 <110> APPLICANT: E. I. du Pont de Nemours and Company  
 5 <120> TITLE OF INVENTION: Nucleic Acid Sequences Encoding Isoflavone Synthase  
 7 <130> FILE REFERENCE: BB1339 PCT  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/857,581  
 C--> 10 <141> CURRENT FILING DATE: 2001-06-05  
 12 <150> PRIOR APPLICATION NUMBER: 60/117,769  
 13 <151> PRIOR FILING DATE: 1999-01-27  
 15 <150> PRIOR APPLICATION NUMBER: 60/144,783  
 16 <151> PRIOR FILING DATE: 1999-07-20  
 18 <150> PRIOR APPLICATION NUMBER: 60/156,094  
 19 <151> PRIOR FILING DATE: 1999-09-24  
 21 <160> NUMBER OF SEQ ID NOS: 66  
 23 <170> SOFTWARE: Microsoft Office 97

#### ERRORED SEQUENCES

2554 <210> SEQ ID NO: 55  
 2555 <211> LENGTH: 499  
 2556 <212> TYPE: PRT  
 2557 <213> ORGANISM: Lupinus albus  
 E--> 2559 <400> SEQUENCE: (49) 55  
 2560 Phe Leu His Leu Arg Pro Thr Pro Thr Ala Lys Ser Lys Ala Leu Arg  
 2561 1 5 10 15  
 2563 His Leu Pro Asn Pro Pro Ser Pro Lys Pro Arg Leu Pro Phe Ile Gly  
 2564 20 25 30  
 2566 His Leu His Leu Leu Lys Asp Lys Leu Leu His Tyr Ala Leu Ile Asp  
 2567 35 40 45  
 2569 Leu Ser Lys Lys His Gly Pro Leu Phe Ser Leu Tyr Phe Gly Ser Met  
 2570 50 55 60  
 2572 Pro Thr Val Val Ala Ser Thr Pro Glu Leu Phe Lys Leu Phe Leu Gln  
 2573 65 70 75 80  
 2575 Thr His Glu Ala Thr Ser Phe Asn Thr Arg Phe Gln Thr Ser Ala Ile  
 2576 85 90 95  
 2578 Arg Arg Leu Thr Tyr Asp Ser Ser Val Ala Arg Val Pro Phe Gly Pro  
 2579 100 105 110  
 2581 Tyr Trp Lys Phe Val Arg Lys Leu Ile Met Asn Asp Leu Leu Asn Ala  
 2582 115 120 125  
 2584 Thr Thr Val Asn Lys Leu Arg Pro Leu Arg Thr Gln Gln Ile Arg Lys  
 2585 130 135 140  
 2587 Phe Leu Arg Val Met Ala Gln Gly Ala Glu Ala Gln Lys Pro Leu Asp  
 2588 145 150 155 160  
 2590 Leu Thr Glu Glu Leu Leu Lys Trp Thr Asn Ser Thr Ile Ser Met Met  
 2591 165 170 175  
 2593 Met Leu Gly Glu Ala Glu Glu Ile Arg Asp Ile Ala Arg Glu Val Leu  
 2594 180 185 190  
 2596 Lys Ile Phe Gly Glu Tyr Ser Leu Thr Asp Phe Ile Trp Pro Leu Lys

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,581

DATE: 06/27/2001  
TIME: 15:07:37

Input Set : A:\BB1339 PCT Seq Listing.txt  
Output Set: N:\CRF3\06272001\I857581.raw

2597	195	200	205
2599	His Leu Lys Val Gly Lys Tyr Glu Lys Arg Ile Asp Asp Ile Leu Asn		
2600	210	215	220
2602	Lys Phe Asp Pro Val Val Glu Arg Val Ile Lys Lys Arg Arg Glu Ile		
2603	225	230	235
2605	240		
2606	Val Arg Arg Arg Lys Asn Gly Glu Val Val Glu Gly Glu Val Ser Gly		
2607	245	250	255
2608	Val Leu Leu Asp Thr Leu Leu Glu Phe Ala Glu Asp Glu Thr Met Glu		
2609	260	265	270
2611	Ile Lys Ile Thr Lys Asp His Ile Lys Gly Leu Val Val Asp Phe Phe		
2612	275	280	285
2614	Ser Ala Gly Thr Asp Ser Thr Ala Val Ala Thr Glu Trp Ala Leu Ala		
2615	290	295	300
2617	Glu Leu Ile Asn Asn Pro Lys Val Leu Glu Arg Ala Arg Glu Glu Val		
2618	305	310	315
2619	320		
2620	Tyr Ser Val Val Gly Lys Asp Arg Leu Val Asp Glu Val Asp Thr Gln		
2621	325	330	335
2623	Asn Leu Pro Tyr Ile Arg Ala Ile Val Lys Glu Thr Phe Arg Met His		
2624	340	345	350
2626	Pro Pro Leu Pro Val Val Lys Arg Lys Cys Thr Glu Glu Cys Glu Ile		
2627	355	360	365
2629	Gly Tyr Val Ile Pro Glu Gly Ala Leu Ile Leu Phe Asn Val Trp		
2630	370	375	380
2632	Gln Val Gly Arg Asp Pro Lys Tyr Trp Asp Arg Pro Ser Glu Phe Arg		
2633	385	390	395
2634	400		
2635	Pro Glu Arg Phe Leu Glu Thr Glu Ala Glu Gly Glu Ala Arg Pro Leu		
2636	405	410	415
2638	Asp Leu Arg Gly Gln His Phe Gln Leu Leu Pro Phe Gly Ser Gly Arg		
2639	420	425	430
2641	Arg Met Cys Pro Gly Val Ile Leu Ala Thr Ser Gly Met Ala Thr Leu		
2642	435	440	445
2644	Leu Ala Ser Leu Ile Gln Cys Phe Asp Leu Gln Val Leu Gly Pro Gln		
2645	450	455	460
2647	Gly Gln Ile Leu Lys Gly Gly Asp Ala Lys Val Ser Met Glu Glu Arg		
2648	465	470	475
2649	480		
2650	Ala Gly Leu Thr Val Pro Arg Ala His Ser Leu Val Cys Val Pro Leu		
2651	485	490	495
2653	Ala Arg Ile		

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/857,581

DATE: 06/27/2001  
TIME: 15:07:38

Input Set : A:\BB1339 PCT Seq Listing.txt  
Output Set: N:\CRF3\06272001\I857581.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:2559 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:55 differs:49  
L:3373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3400 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66  
L:3463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66